

thirty minutes slept so soundly that often they were not disturbed by the taking of the pulse and temperature. In 24 per cent a persistent state of tranquility ensued without sleep. In 4 per cent. the remedy seemed to have no effect whatsoever. His results correspond with those of Ostermayer and Preninger in showing that duboisin has a more pronounced influence in women than in men. If the same dose be given for several days, a diminution in its effect and tolerance is established, but if the injection be discontinued for a few days, and then resumed, the former prompt action is again noticeable.

W. M. L.

Society Reports.

NEW YORK NEUROLOGICAL SOCIETY.

Meeting of December 1, 1891.

The President, Dr. L. C. GRAY, in the chair.

RESECTION OF POSTERIOR BRANCHES OF UPPER THREE CERVICAL NERVES FOR SPASMODIC TORTICOLLIS, WITH REPORT OF A CASE.

DR. CHARLES A. POWERS read a paper with this title. In February of the present year the patient, a man thirty-seven years of age, was sent to the speaker for an opinion regarding a spasmodic affection of the neck from which he was suffering. There was no history of syphilis or other constitutional disease. He had been from boyhood exceedingly nervous and restless, starting violently when suddenly surprised, trembling at the slightest injury or fear of danger. His father had always manifested the same nervous conditions in a marked degree. The patient had rather a senile look, stooping and throwing the head well forward. When left to itself the head was spasmodically rotated to the right to its fullest extent. The patient could carry it back by pressing the chin over with the hand, but when the restraining force was removed it was instantly jerked back to its rotated condition. These spasms were constant during the day, and much worse when the patient was fatigued, irritated, surprised, or among strangers. The right hand was constantly upon the chin, and the patient was unable to use

it in work or even at table. The right shoulder was not elevated, there was no spasm of the muscles of the left side, and the right trapezius, sterno-mastoid and scalenus anticus seemed free from implication. The patient's neck was large, thick and short; it seemed somewhat fuller on the right side, posteriorly, than on the left. The spasmodic movement seemed to be a rotation of the occiput upon the atlas; when it took place an increased fullness could be felt in the region just below the occiput and covered by the trapezius, although no contraction could be felt in that muscle. After very careful examination the affection was considered to be confined to the posterior rotators, and division or resection of the nerves supplying them was recommended. The speaker, after familiarizing himself with the anatomy of the parts, by dissection of the cadaver, proceeded upon the patient as follows: the occipital region was shaved and the parts prepared in the usual way. The anæsthetic was given and the patient placed flatly upon his abdomen, the head projecting over the end of the table, and so held that the external occipital protuberance was in a straight line with the vertebral spinous processes. A three-inch transverse incision was made at the back of the neck, beginning at the median-line one and one-quarter inches below the external occipital protuberance and running forward. This was sufficiently enlarged until it measured four and a quarter inches in length. After some difficulty the occipitalis major nerve was found at the upper part of the complexus outside of the intra-muscular aponeurosis of this muscle. The complexus was divided and the nerve followed back to the posterior branch of the second cervical. The inferior oblique muscle was then found, passing from the tip of the transverse process of the atlas to the spinous process of the axis. The nerve was followed back to its exit from the spinal canal. Following down beneath the complexus the external branch of the posterior division of the third cervical nerve was found. This was traced back to the bifurcation of the main trunk. One had at command then the nerve supply to the inferior oblique, the rectus capitis, posticus major and the splenius, the three posterior rotators, the first being supplied by the first and second cervical, the rectus by the suboccipital from the first cervical and the splenius by the second and third cervical. Each nerve was followed well back to the spine, and from one-half to three-quarters of an inch excised from each of the three. Buried muscular sutures were inserted, a drainage tube laid to the bottom of the wound and the skin sewn up. A large antiseptic dressing was applied and the

head fixed in moderate extension by plaster. On coming out of the anæsthetic the patient had no spasm of the neck, the head was in the median line, and remained there until the final removal of the dressings. The wound healed *per primam* throughout; the tube was removed on the fifth day, and all dressings were taken off at the end of ten days. At that time there were a few slight spasms, but they did not persist. Directions were given regarding massage and the like, but these were disregarded, and the head gradually assumed a position of contraction, with the face drawn to the right. In spite of the patient's present contracted wry-neck he expressed himself as feeling that his condition was vastly better than it was before the operation.

Appropriate after-treatment, by confinement of the head, massage, and so forth, should receive careful attention. The speaker could but think that if such measures had been conscientiously carried out in the present case deformity would have been much less.

DR. R. W. AMIDON thought Dr. Powers had been too modest in that he had not called attention to the marked improvement in the patient's right arm. Before the operation this had been practically powerless, while now its functions were restored. The position of the head was now similar to that before the operation, but the spasm was now tonic instead of clonic, and therefore much more endurable. There was now no elevation of the chin, which was conclusive proof that none of the muscles originating or inserted in the occipital bone were now implicated. The elevation of the right shoulder was now much more marked, and there was no doubt that the levator anguli scapulæ entered largely into the production of the deformity. The speaker then went over the action and nerve-supply of the muscles of the shoulder with the view of demonstrating that possibly the present condition might be brought about by this group, the nerves to which had not been cut.

DR. C. L. DANA thought that the muscles of the right side which were cut had possibly entered into the production of the spasm, but that the nerve-force was now distributed through fewer channels, and perhaps this was the reason that the spasm was now tonic. The question was at any rate of extreme interest, because heretofore there had been much scepticism as to the value of operation for wry-neck. He thought the experience of American observers was that operation on the spinal accessory had been uniformly fruitless, but the relief obtained where the upper cervical nerves were involved had given a more favorable showing. With

better technique perhaps more favorable results would come, in the case of the spinal accessory. He did not doubt but that the condition under consideration was the result of a central nervous lesion. Why surgical treatment should cure he did not know unless it was the result of the operation *per se*.

DR. M. A. STARR had seen these cases treated by division of the spinal accessory. No improvement followed. He had therefore hesitated to recommend such procedure. He thought it had yet to be demonstrated that the condition was one of cerebral origin, as there was nothing analogous to wry-neck in the form of cerebral spasm of any other muscle. A patient had come to him last February with an extremely pronounced case of wry-neck. This patient had noticed that pressure on the right side of the occiput high up would relieve the spasm. An apparatus was accordingly constructed which, being constantly worn, enabled him at the onset of the spasm to bring the necessary pressure to the required spot by means of a system of levers worked by his arm. The speaker had that day seen the patient, and had found him apparently perfectly cured and able to leave off the apparatus. It was difficult to determine in these cases what muscles or set of muscles were implicated. The spasm was probably a complex act by a large number of muscles and usually reflex in character, induced by sensory irritation somewhere.

DR. W. M. LESZYNSKY thought that there was a lack of such pathological knowledge of the disease as would indicate that there existed a central lesion. It was remarkable that so few microscopical examinations had been so far made of nerves which had been resected. In the present case they had not been offered any explanation as to the cause of the arm symptom, and whether it was supposed to have borne any relation to the spasm in the neck. He had been interested in a few cases of spasmodic wry-neck, and felt confident that the hypodermic injection of atropine had helped them. He had reported a case in which the spinal accessory was implicated, and he had felt that the benefit done was the result of the atropine. He thought that this measure should be energetically tried as part of a treatment by drugs before surgery was resorted to.

DR. G. M. HAMMOND said that the general idea was that operations of this kind were not successful. The result in the present case seemed to relate more to the comfort of the patient than to benefit, from a pathological stand-point. It might be easier for the patient to have a tonic instead of a clonic spasm, but the condition of wry-neck remained.

DR. J. M. MORTON cited the history of a patient who had come to him with a well-marked case of spasmodic wry-neck of long standing. Every effort had been made therapeutically. He had tried suspension. The *séances* had numbered about five, each lasting about five or six minutes, the patient's toes being just free of, or barely touching, the floor. Improvement had been prompt, and had continued to a cure which had been maintained up to the last report.

THE PRESIDENT had never seen any good results from operative work in these cases. While out of a large number operated upon for him, by different surgeons, temporary improvement had taken place in some, relapse had ultimately occurred. He had obtained more satisfactory results by deep injections of atropine than from any other form of treatment, though he had found the internal administration of belladonna effective. As to the permanency of the atropine benefit he could not speak, the patient having passed from observation. Temporary results were worthless for deduction, and relapses were probable at any time.

DR. POWERS thought that the indications for operation must come from the physicians, surgeons being hardly justified in interfering until every other method of treatment had been tried. Promise of amelioration must be guardedly given. If the technique were perfected so as to cover the nerve-supply to the muscles involved he did not see why the spasm could not be stopped.

Alleged Cerebral Tumor.—DR. LESZYNSKY showed a patient whom he had presented to the society three years ago; at that time the diagnosis was made of cerebral tumor. The symptoms had then been frontal headache, vomiting, and double-optic neuritis. Now this man was in perfect health, and since treatment had never lost a day's work from illness. There was atrophy in both optic nerves. Vision was in one eye $\frac{3}{10}$ —in the other $\frac{2}{10}$. There was no disturbance in the color field. The treatment during the acute stage had been by large doses of iodide of potassium, with leeches and cathartics when the inflammation was excessive. The speaker had been able to find only one where autopsy had revealed localized basilar meningitis in the region of the optic chiasm.